

## Food securisation in Sub Saharan Africa



Mini-symposium E  
19 august 17h30- 19h  
Room 305 C

## People, land and food in sub saharan Africa



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## The problem



On average, for Sub Saharan Africa :

- ❑ Food availability remains the lowest in the world < 2300 kcal/inhab/day
- ❑ This availability relies more and more on imports

What are the evidences from the past?  
(43 years)

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## Methodology



- ❑  $\text{Food/inhabitant} = \text{Production/inhab} + (\text{M}-\text{X})/\text{inhabitant} - \text{losses}$
- ❑  $\text{Production/inhabitant} = \text{Food/Ha} \times \text{Ha/worker} \times \text{worker/inhabitant}$
- ❑  $\text{Food/worker} = \text{Food/Ha} \times \text{Ha/worker}$   
*Partial productivities as in Ruttan, Bairoch and Malassis*
- ❑ Food and production and M and X expressed in Kcal/day
- ❑ Data = FAO Stat 1961-2003 + Improvements / 38 countries
- ❑ *Graphical presentation and*
- ❑ *comparisons between clusters of countries*

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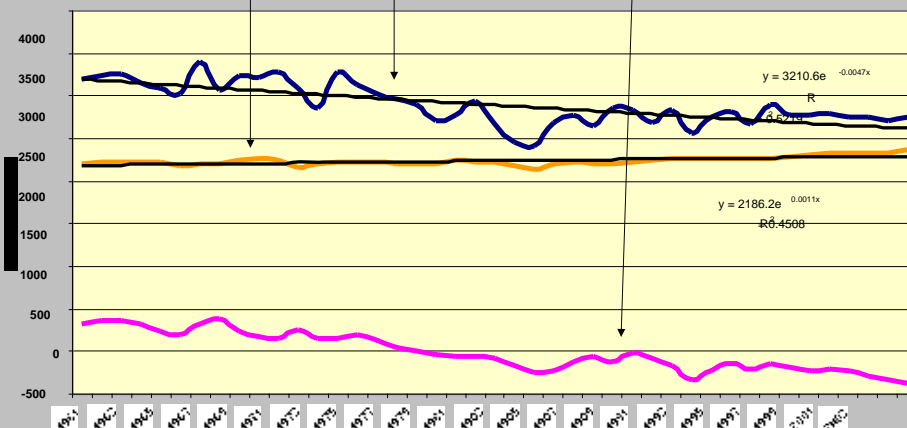


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Partial productivities as in Ruttan, Bairoch and Malassis
- ❑ Food and production and M and X expressed in Kcal/day
- ❑ Data = FAO Stat 1961-2003
- ❑ First, Graphical presentation of time series for these ratios for SSA
- ❑ Then, comparisons between clusters of countries identified on maps.

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## The trade dependency

$$\text{Food/inhabitant} = \text{Production/inhab} + (\text{M-X})/\text{inhabitant} - \text{losses}$$



## The SSA food challenge



□ People

□ Land

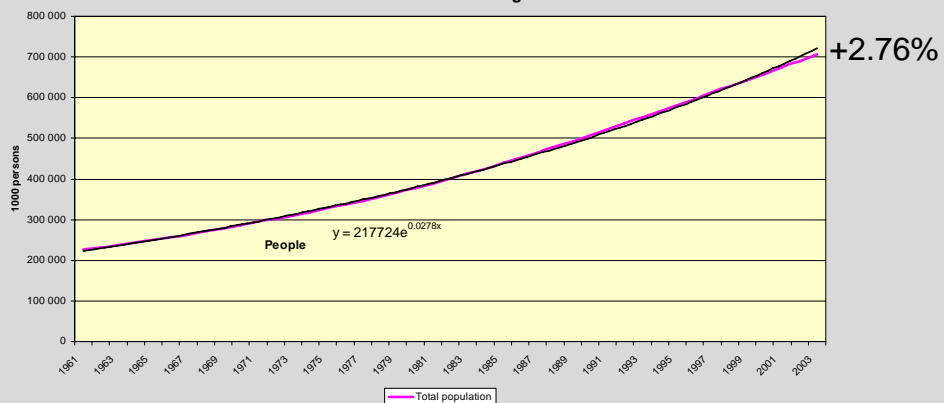
□ food

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## Sustained Population growth



The SSA food challenge

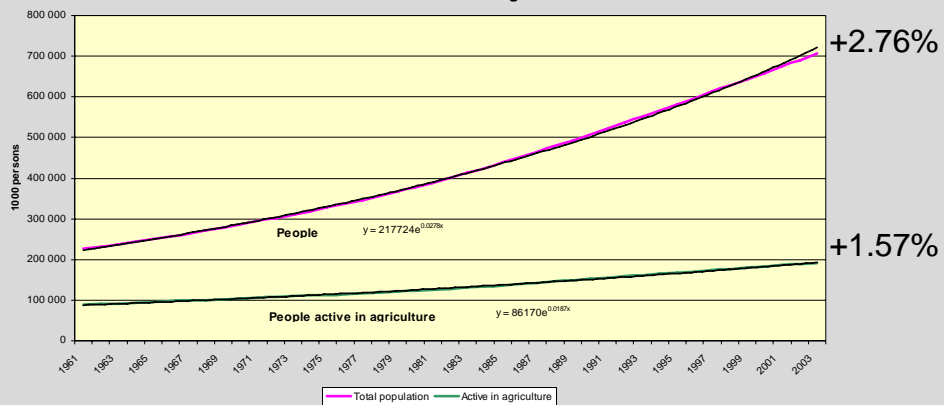


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## With more and more people in agriculture



The SSA food challenge

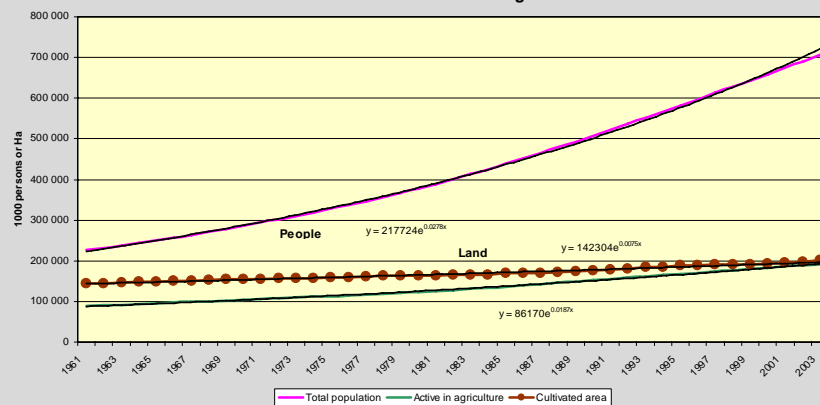


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## Relatively limiting land

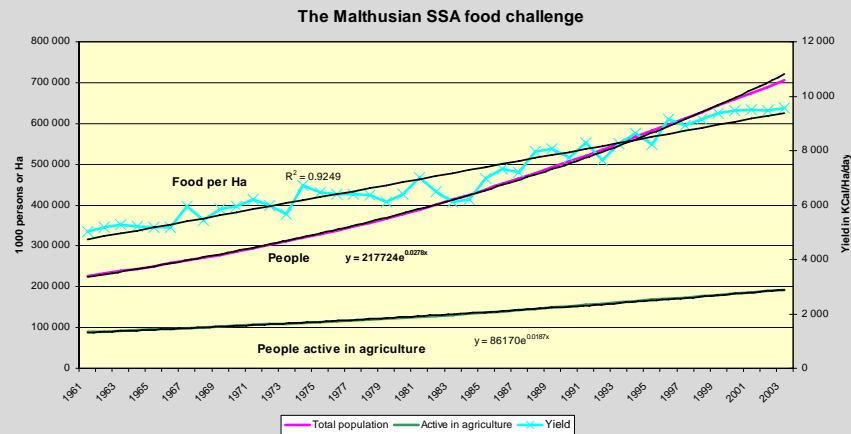


The SSA food challenge



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## A linear yield increase

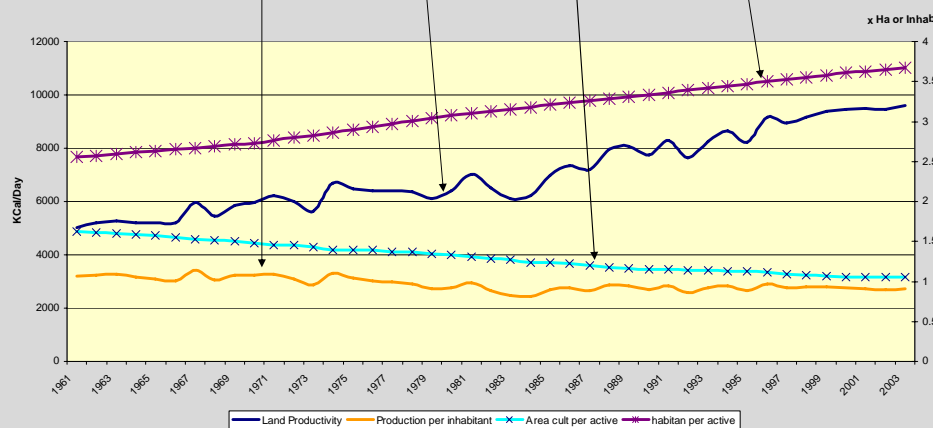


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## Weak food performances

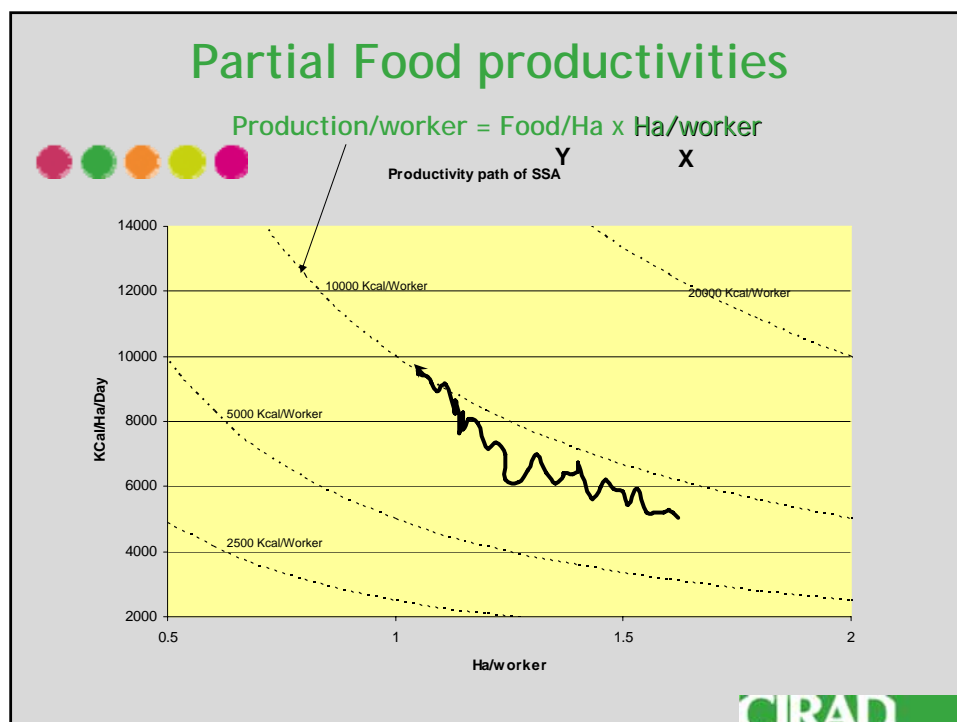
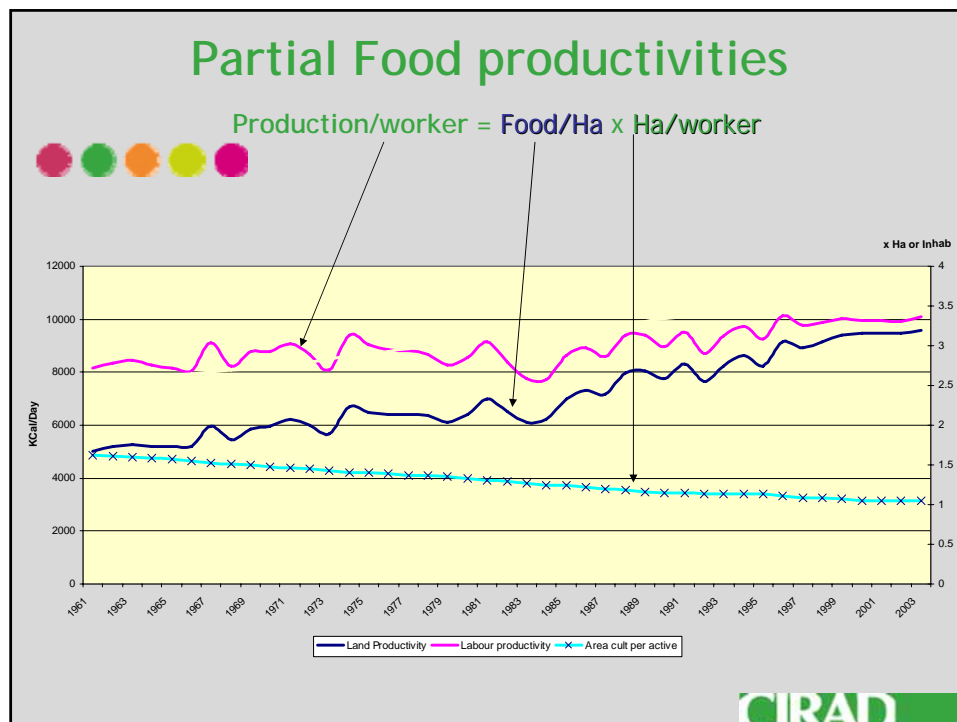


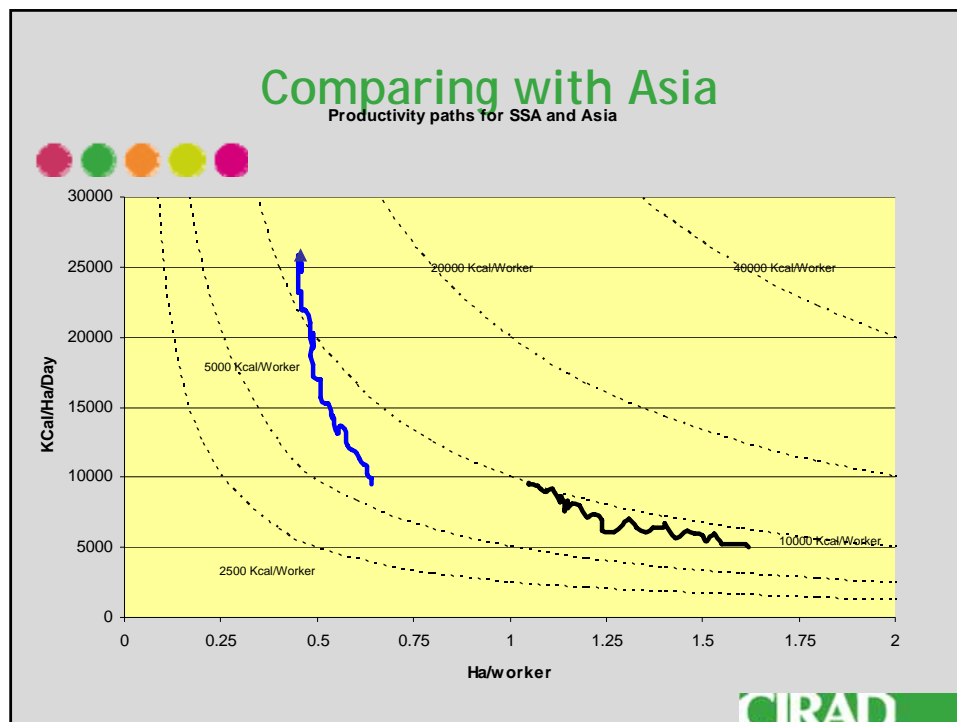
Production/inhabitant = Food/Ha x Ha/worker / (inhabitant/worker)



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### For the whole Sub Saharan Africa

- ☐ Weak food performances
- ☐ Limited gains in productivities
- ☐ From net exporter to net importer of food (Kcal)

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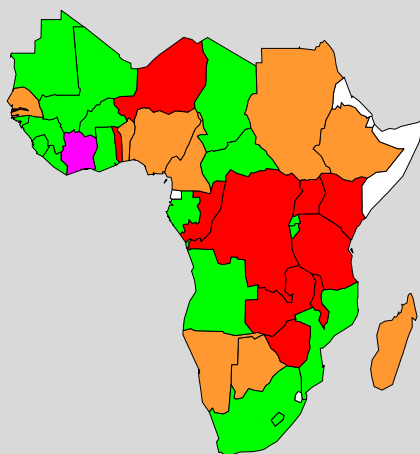
## BUT Africa is so diverse



- ☐ Small, big and medium countries
- ☐ From desert to equatorial forest
- ☐ From very low human densities to high
- ☐ From hand cultivation to mechanized
- ☐ Annual and perennial crops
- ☐ Food crops and cash crops
  
- ☐ We will compare countries' performances with the global trends and present clusters of trajectories

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## A general demographic boom



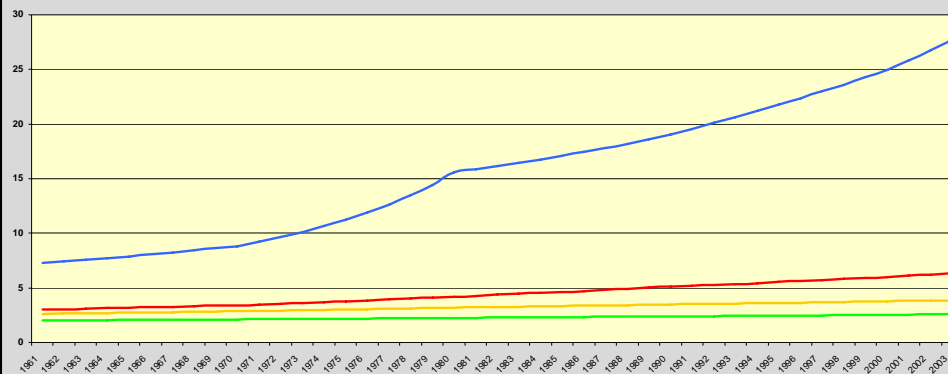
- ☐ For the period, (43 years) with an average rate of 2,8% total population has been multiplied by 3.1
- ☐ A group of countries follows this average trend, another is below (x 2.5), another is over (x3.6) and Ivory Coast is unique(x4.8)

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## More people to be nourished by agr worker



Inhabitants per ag worker

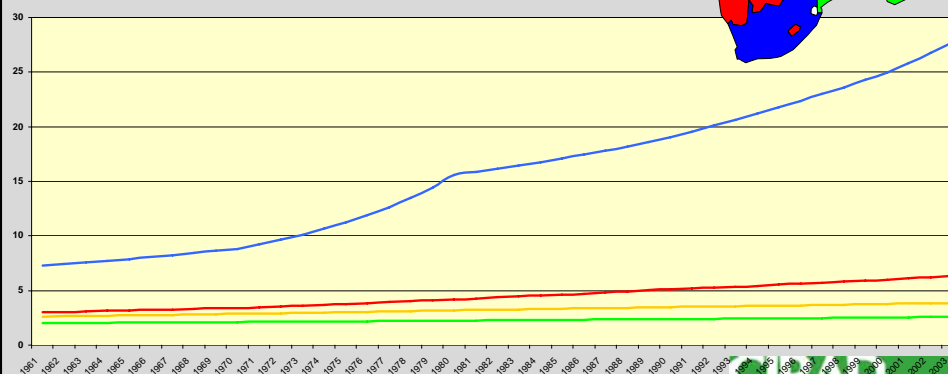


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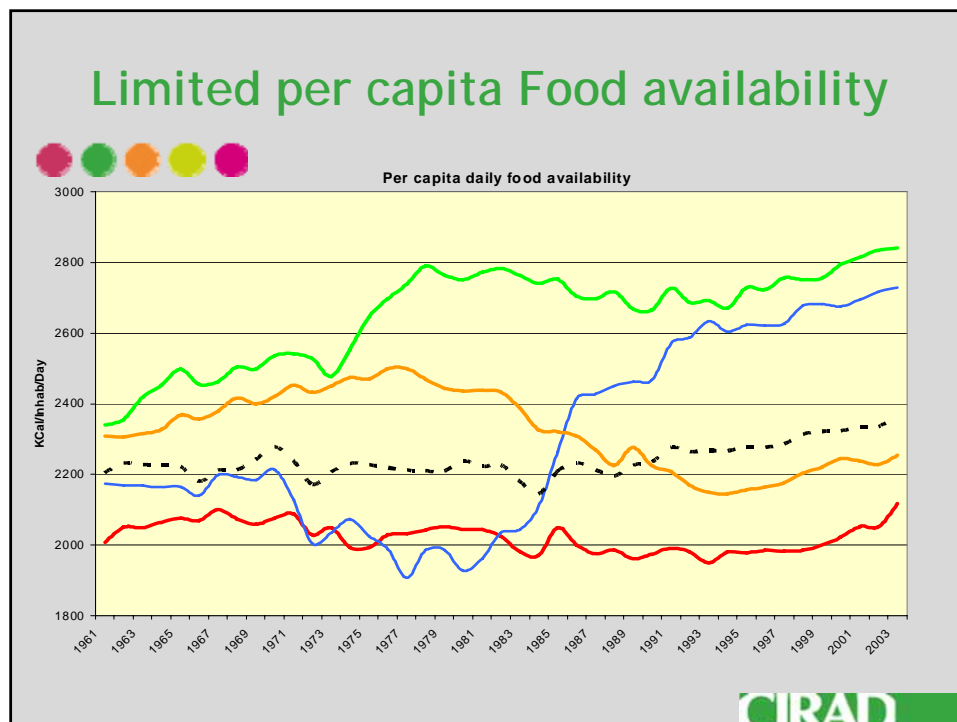
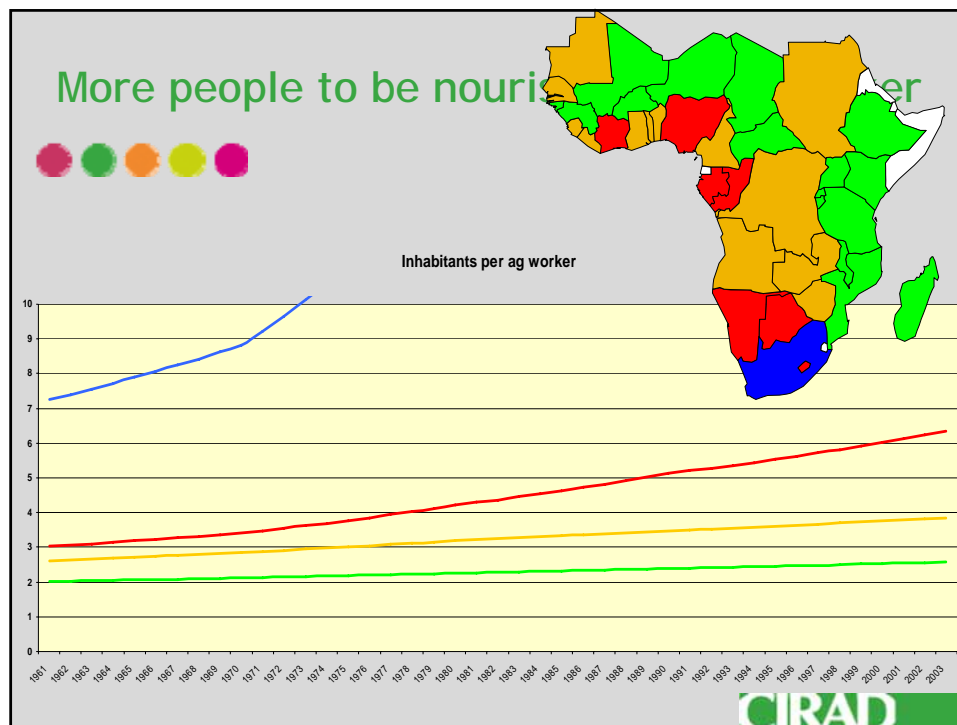
## More people to be nourished by agr worker

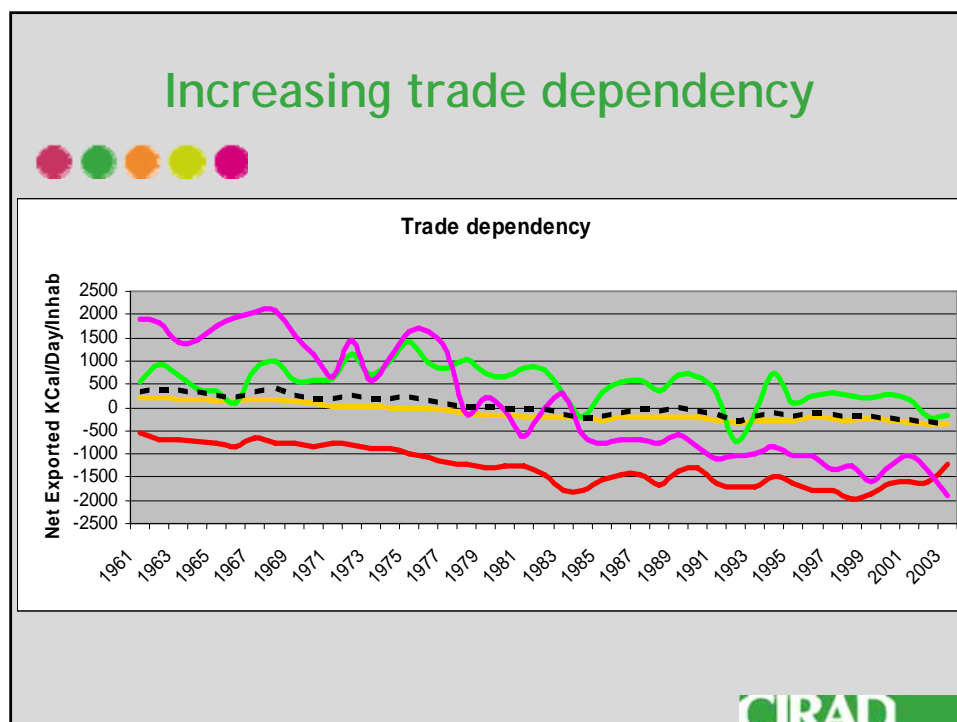
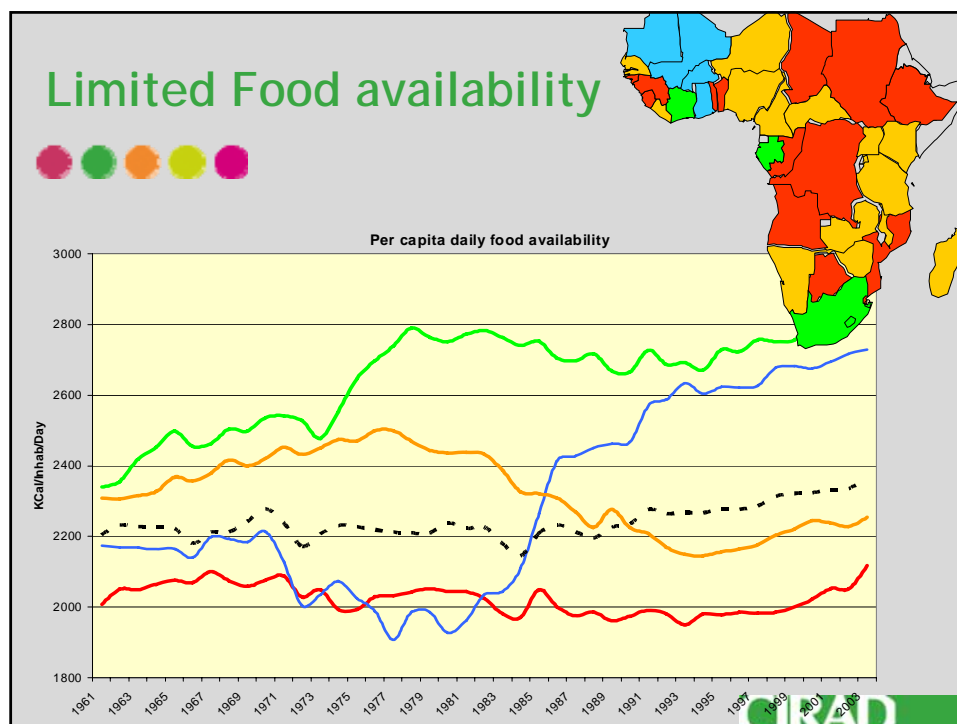


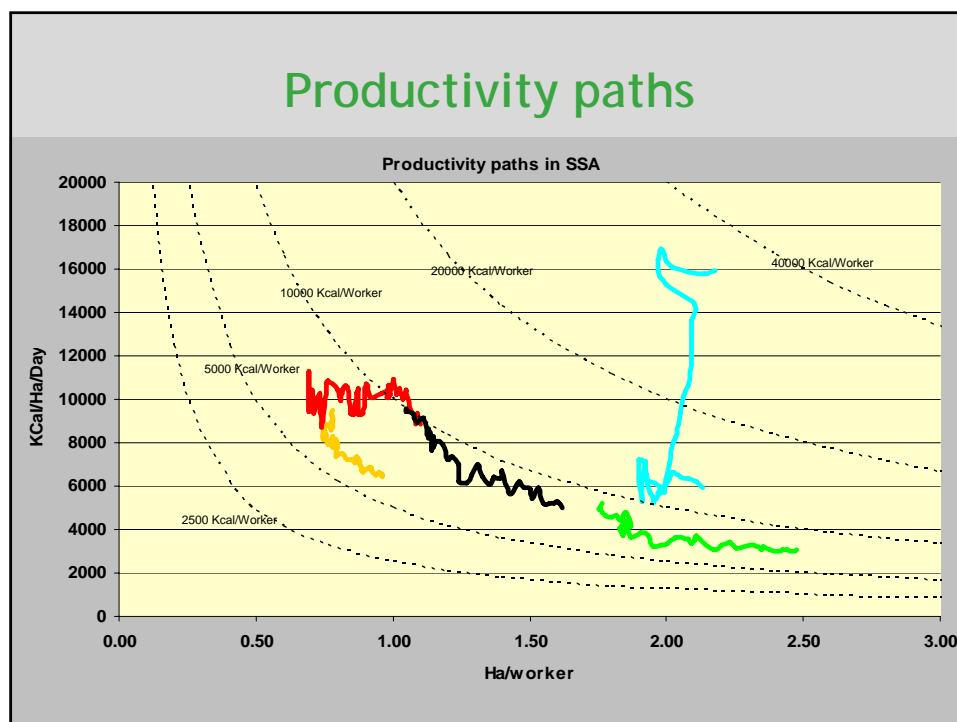
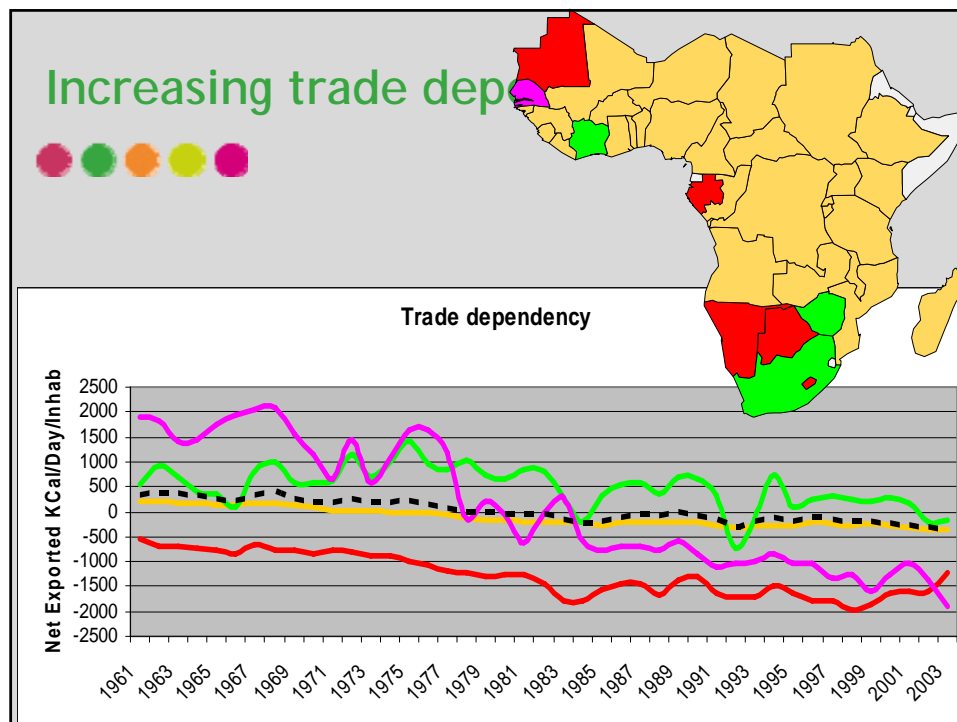
Inhabitants per ag worker



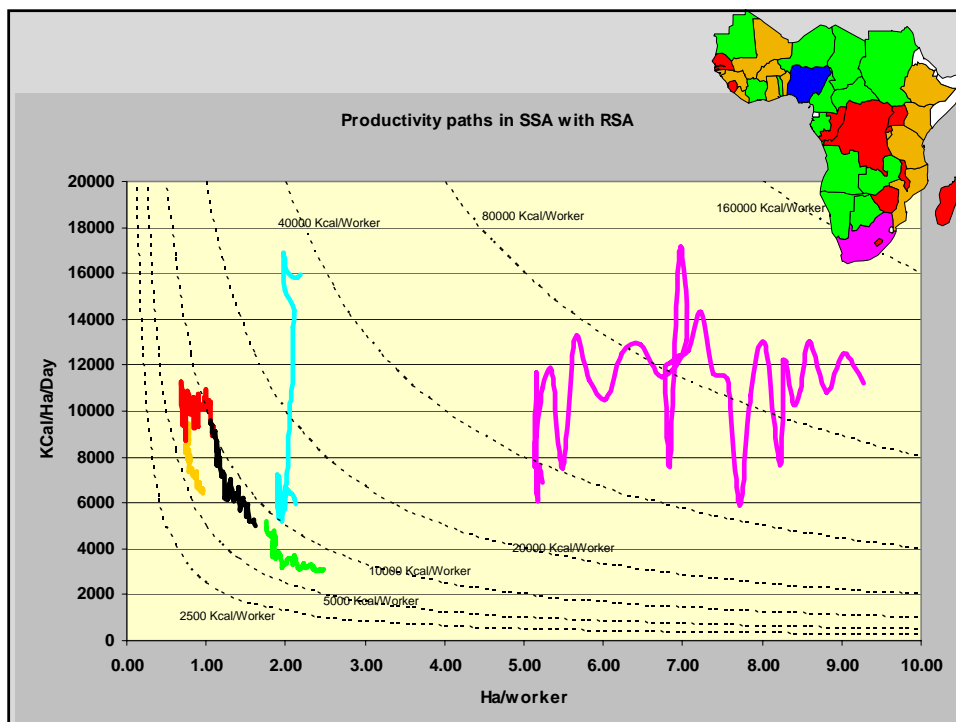
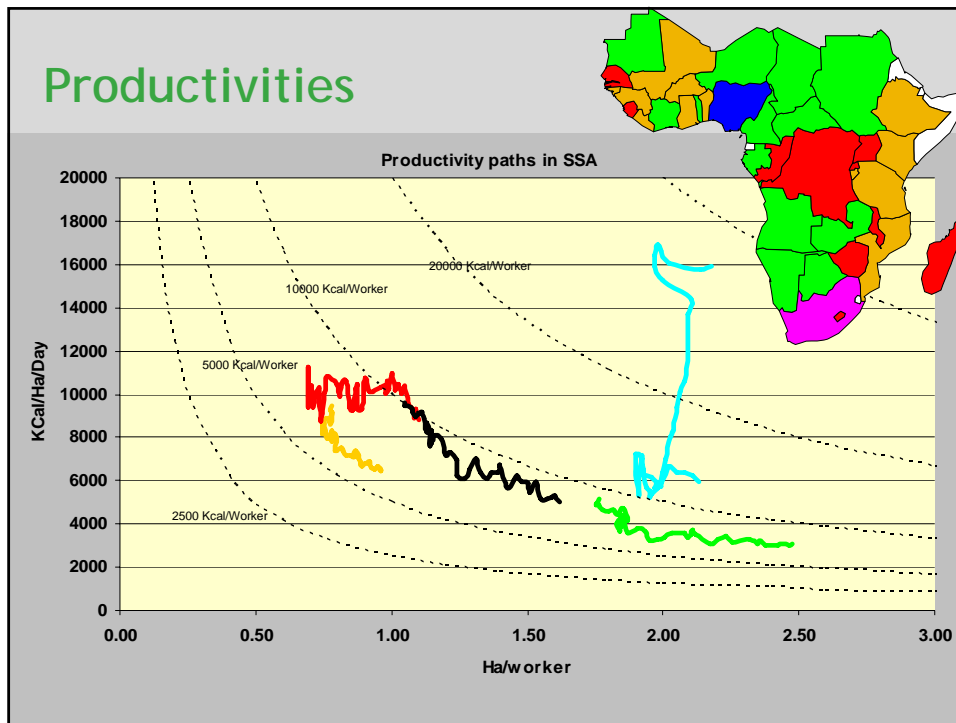
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## Productivities





## In summary



In SSA between 1961 and 2003:

- ☐ Global decrease of per capita food availability
- ☐ Increase of food dependency
- ☐ Slight increase of labor productivity
- ☐ a decrease of land availability/worker
  
- ☐ it was not possible to identify a typical combination of factors across countries explaining this declining trends (contrary to our working hypothesis).

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## Some implications



As each country is specific

- ☐ Ready made policies are very questionable.
- ☐ For each country, and even regions inside it, it is important to have a good long period diagnostic.
  
- ☐ Considering demographic perspectives and land limitations, an improvement of agricultural productivities (land and labour) is imperative.
- ☐ The challenge is to shift from subsistence to surplus agriculture.

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